

WHAT IS CLAIMED IS:

1. A silver halide emulsion comprising silver halide grains, wherein the variation coefficient of equivalent-circle diameters of all the silver halide grains is 40% or less, and 70% or more of the total projected area of all the grains is accounted for by silver halide grains each satisfying the following requirements (i), (ii) and (iii):

(i) a silver iodobromide or silver iodochlorobromide tabular grain having (111) planes as main planes thereof,

(ii) a thickness thereof is $0.1 \mu\text{m}$ or less, and

(iii) surface iodide contents in the main plain thereof meeting the following relations:

$I_o < 30 \text{ mol\%}$ and

$0.7I_o < I_s < 1.3I_o$

wherein "Is" is an average value of surface iodide contents (I_p 's) in the main plane of each grain and "Io" is an average value of the "Is" values of all the tabular grains.

2. The silver halide emulsion according to claim 1, wherein each of the silver halide tabular grains accounting for 70% or more of the total projected area further satisfying requirement (iv) below:

(iv) the equivalent-circle diameter is $1.0 \mu\text{m}$ or more, and the variation coefficient of the distribution

of the surface iodide contents (I_p 's) in a silver halide grain is 30% or less, wherein the surface iodide content being measured in every measurement area all over the main plane of the silver halide grain and the measurement area being a square having a side length of 100 nm.

3. The silver halide emulsion according to claim 1, wherein in the requirement (iii), " I_s " satisfies the relation: $0.8I_o < I_s < 1.2I_o$.

4. The silver halide emulsion according to claim 2, wherein in the requirement (iv), the variation coefficient of the " I_p 's" is 20% or less.

5. The silver halide emulsion according to claim 1, wherein each of the silver halide tabular grains accounting for 70% or more of the total projected area further satisfying requirement (iv') below:

(iv') the equivalent-circle diameter is $3.0\text{ }\mu\text{m}$ or more.

6. The silver halide emulsion according to claim 2, wherein each of the silver halide tabular grains accounting for 70% or more of the total projected area further satisfying requirement (iv') below:

(iv') the equivalent-circle diameter is $3.0\text{ }\mu\text{m}$ or more.

7. The silver halide emulsion according to

claim 1, wherein when the emulsion is irradiated with
an electromagnetic wave of 325 nm under the environment
of an absolute temperature of 6°K, induced fluorescence
of 575 nm with an intensity of at least one third the
5 intensity of the maximum fluorescent emission induced
in the wavelength range of from 490 to 560 nm, is
emitted.

8. The silver halide emulsion according to
claim 5, wherein when the emulsion is irradiated with
10 an electromagnetic wave of 325 nm under the environment
of an absolute temperature of 6°K, induced fluorescence
of 575 nm with an intensity of at least one third the
intensity of the maximum fluorescent emission induced
in the wavelength range of from 490 to 560 nm, is
15 emitted.

9. The silver halide emulsion according to
claim 1, wherein each of the silver halide tabular
grains accounting for 70% or more of the total
projected area further satisfying requirement (v)
20 below:

(v) when the distribution of iodide contents is
measured on an imaginary plane inside the tabular grain
which is parallel to the main plane and which is
present in the depth of 20% of the tabular grain
25 thickness from the main plane, the measurement points
at which the iodide content is maximum distribute in
the form of a circle surrounding the center of the

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imaginary plane, wherein the iodide content being measured in every measurement area all over the imaginary plane and the measurement area being a square having a side length of 100 nm.

5 10. The silver halide emulsion according to claim 5, wherein each of the silver halide tabular grains accounting for 70% or more of the total projected area further satisfying requirement (v) below:

10 (v) when the distribution of iodide contents is measured on an imaginary plane inside the tabular grain which is parallel to the main plane and which is present in the depth of 20% of the tabular grain thickness from the main plane, the measurement points
15 at which the iodide content is maximum distribute in the form of a circle surrounding the center of the imaginary plane, wherein the iodide content being measured in every measurement area all over the
20 imaginary plane and the measurement area being a square having a side length of 100 nm.

11. The silver halide emulsion according to claim 9, wherein the iodide contents at the measurement points at which the iodide contents are maximum are within the range of from 15 mol% to 40 mol%.

25 12. The silver halide emulsion according to claim 10, wherein the iodide contents at the measurement points at which the iodide contents are

maximum are within the range of from 15 mol% to 40 mol%.

13. The silver halide emulsion according to claim 1, wherein each of the silver halide tabular grains accounting for 70% or more of the total
5 projected area further having 10 or more dislocation lines per grain at the peripheral portion thereof.

14. The silver halide emulsion according to claim 5, wherein each of the silver halide tabular grains accounting for 70% or more of the total
10 projected area further having 10 or more dislocation lines per grain at the peripheral portion thereof.

15. A silver halide photographic light-sensitive material comprising at least one silver halide emulsion layer on a support, wherein the silver halide emulsion
15 layer contains a silver halide emulsion comprising silver halide grains, wherein the variation coefficient of equivalent-circle diameters of all the silver halide grains is 40% or less, and 70% or more of the total projected area of all the grains is accounted for by
20 silver halide grains each satisfying the following requirements (i), (ii) and (iii):

- (i) a silver iodobromide or silver iodochlorobromide tabular grain having (111) planes as main planes thereof,
- 25 (ii) a thickness thereof is 0.1 μm or less, and
- (iii) surface iodide contents in the main plain thereof meeting the following relations:

$I_o < 30 \text{ mol\%}$ and

$0.7I_o < I_s < 1.3I_o$

wherein "Is" is an average value of surface iodide contents (Ip's) in the main plane of each grain and

5 "Io" is an average value of the "Is" values of all the tabular grains

10 16. The silver halide photographic light-sensitive material according to claim 15, wherein each of the silver halide tabular grains accounting for 70% or more of the total projected area further satisfying requirement (iv) below:

(iv) the equivalent-circle diameter is $1.0 \mu\text{m}$ or more, and the variation coefficient of the distribution of the surface iodide contents (Ip's) in a silver
15 halide grain is 30% or less, wherein the surface iodide content being measured in every measurement area all over the main plane of the silver halide grain and the measurement area being a square having a side length of 100 nm

20 17. A silver halide photographic light-sensitive material according to claim 15, wherein each of the silver halide tabular grains accounting for 70% or more of the total projected area further satisfying requirement (iv') below:

25 (iv') the equivalent-circle diameter is $3.0 \mu\text{m}$ or more

18. A silver halide photographic light-sensitive

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material according to claim 15, wherein when the emulsion is irradiated with an electromagnetic wave of 325 nm under the environment of an absolute temperature of 6°K, induced fluorescence of 575 nm with an intensity of at least one third the intensity of the maximum fluorescent emission induced in the wavelength range of from 490 to 560 nm, is emitted.

19. A silver halide photographic light-sensitive material according to claim 15, wherein each of the silver halide tabular grains accounting for 70% or more of the total projected area further satisfying requirement (v) below:

(v) when the distribution of iodide contents is measured on an imaginary plane inside the tabular grain which is parallel to the main plane and which is present in the depth of 20% of the tabular grain thickness from the main plane, the measurement points at which the iodide content is maximum distribute in the form of a circle surrounding the center of the imaginary plane, wherein the iodide content being measured in every measurement area all over the imaginary plane and the measurement area being a square having a side length of 100 nm

20. A silver halide photographic light-sensitive material according to claim 15, wherein each of the silver halide tabular grains accounting for 70% or more of the total projected area further having 10 or more

dislocation lines per grain at the peripheral portion thereof.

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